



# A New View on Patient Safety: Data as Power

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## Patient Safety Program



DISCLAIMER: The views and opinions expressed in this presentation are those of the author and do not necessarily represent official policy or position of HIMSS.

# Conflict of Interest Disclosure

Michael Datena, MPA, RPh  
Has no real or apparent  
conflicts of interest to report.

## Learning Objectives:

1. Identify a patient safety incident in health care facility
2. Describe how to collect pertinent data about patient safety events
3. Explain how to input pertinent data into a secure, web-based application

# DoD Patient Safety Program (PSP)

- A comprehensive, centralized program with the goal of establishing a culture of patient safety and quality within the MHS
- Established under the 2001 Department of Defense Instruction (DoDI) 6025.17
- DoD PSP identifies and reports actual and potential problems in medical systems and processes and to implement effective actions to improve patient safety and health care quality throughout the MHS

***Our Mission*** is to promote a culture of safety to eliminate preventable patient harm by engaging, educating and equipping patient-care teams to institutionalize evidence-based safe practices.

***Our Vision*** is to support the military mission by building organizational commitment and capacity to implement and sustain a culture of safety to protect the health of the patients entrusted to our care.

# The Military Health System Quadruple Aim

## Readiness

Ensuring that the total military force is medically ready to deploy and that the medical force is ready to deliver health care anytime, anywhere in support of the full range of military operations, including humanitarian missions.

## Experience of Care

Providing a care experience that is patient and family centered, compassionate, convenient, equitable, safe and always of the highest quality.



## Population Health

Reducing the generators of ill health by encouraging healthy behaviors and decreasing the likelihood of illness through focused prevention and the development of increased resilience.

## Per Capita Cost

Creating value by focusing on quality, eliminating waste, and reducing unwarranted variation; considering the total cost of care over time, not just the cost of an individual health care activity.

## What is a Patient Safety Event?

- PSR focused on patient safety events
- The DoD 6025.13-R Regulation\* defines different types of patient safety events:
  - **Near Miss** - *“Any process variation or error or other circumstance that could have resulted in harm to a patient but through chance or timely intervention did not reach the patient or did not harm the patient.”*
  - **Adverse Event** - *“Occurrences or conditions associated with care or services when they cause unexpected harm to a patient during such care or services. These may be because of acts of commission or omission.”*
  - **Sentinel Event** - *“Unexpected occurrences involving death or serious physical or psychological injury or risk thereof.”*
- Not currently reported in PSR
  - Staff safety events
  - Visitor safety events

# Why is Reporting Important

- It's important – to keep our patients safe
  - 44,000 – 98,000 deaths/year (IOM 1999)
  - \$17 – \$29B annually Lost income, production, disability and healthcare costs
    - Over half healthcare costs
  - 1.5M preventable adverse drug events annually in U.S. (IOM 2006)
    - \$3.5B annual estimate

# Reporting and Relevance to the MHS

## **Military Health System\***

- 9.6 million beneficiaries worldwide
- Team of over 130,000 medical professionals
- Direct Care Military Treatment Facilities (MTFs)
  - 59 Acute care hospitals; 1,000,000 inpatient days
  - 360 Outpatient Clinics; 100,000 visits per day
  - 290 Dental Clinics; 15,000 visits per day
  - 150,000 30-day equivalent prescriptions filled per day

## **Until now, the MHS has not had a robust systematic collection of data on events resulting in:**

- Incomplete system-wide tracking and trending
- Difficulty in identifying system quality improvements
- Inadequate capacity for gleaning/analyzing actionable information from patient safety event reporting due to non-standardized, paper-based data collection

# Patient Safety Reporting (PSR)

- PSR responds to the 2001 National Defense Authorization Act directing the Secretary of Defense to establish a patient care error reporting and management system to:
  - Study the occurrences of errors in the patient care provided under chapter 55 of Title 10 United States Code
  - Identify the systemic factors that are associated with such occurrences
  - Provide for action to be taken to correct the identified systemic factors
- Department of Defense Regulation DoD 6025-13R, Quality Assurance
  - Prescribed procedures for a dedicated program focused on prevention and on improving medical systems to overcome preventable errors

# PSR Application Mission Critical Functions

Critical Mission Function	Description
<b>Event Capture</b>	PSR must capture adverse events and near-miss events, as well as events that pose a risk to patient care.
<b>Identify Demographics</b>	PSR must accurately store patient demographic data for adverse and near miss events.
<b>Confidentiality</b>	PSR shall prevent unauthorized access to event data.
<b>Data Aggregation</b>	PSR must aggregate data to support analysis.
<b>Reports</b>	PSR must display and print graphical outputs and reports.

# PSR Product Description

- Patient Safety Reporting (PSR) is a Common Access Card (CAC) enforced, Commercial Off-The-Shelf (COTS), web based Tri-Service data management system, centrally hosted at Defense Information Systems Agency (DISA), that will provide Military Treatment Facilities (MTFs)
- The application has been used in large healthcare organizations – used by over 75% of the National Health Service in the U.K., several provinces in Canada, and Australia
- The application has been used for over 20 years experience in patient safety/risk management and is used worldwide, serving a population of more than 50 million patients

# Capabilities

- **Broadly applicable:** Commercial Off-the-Shelf (COTS) reporting system
- **Maintains confidentiality:** Supports anonymous reporting
- **Easily Assessable:** Web-based application
- **Secure:** Supports role-based security; CAC enforced
- **Simple to use:** Intuitive point and click, drop downs, text for the user
- **Promotes information sharing:** Automates the non-standardized paper-based systems

# Benefits

- **Helps improve patient safety**
  - Promotes depth of information necessary for the proactive improvement of patient safety
  - Supports the local, Service and enterprise-wide safety improvement strategy through systematic methodologies and comprehensive analytic tools
- **Enables greater ability to learn and share safety information**
  - Consolidates both medication and non-medication events in one tool
  - Standardizes data capture and taxonomy
  - Centralizes capture, collection and aggregation of event level data
  - Begins alignment with AHRQ Common Formats
- **Promotes fiscal responsibility**
  - Facilitates cost avoidance by reduction of preventable and avoidable health care events
- **Addresses DOD and Congressional Requirements**
  - Responds to the 2001 National Defense Authorization Act (NDAA) and DoD 6025.13

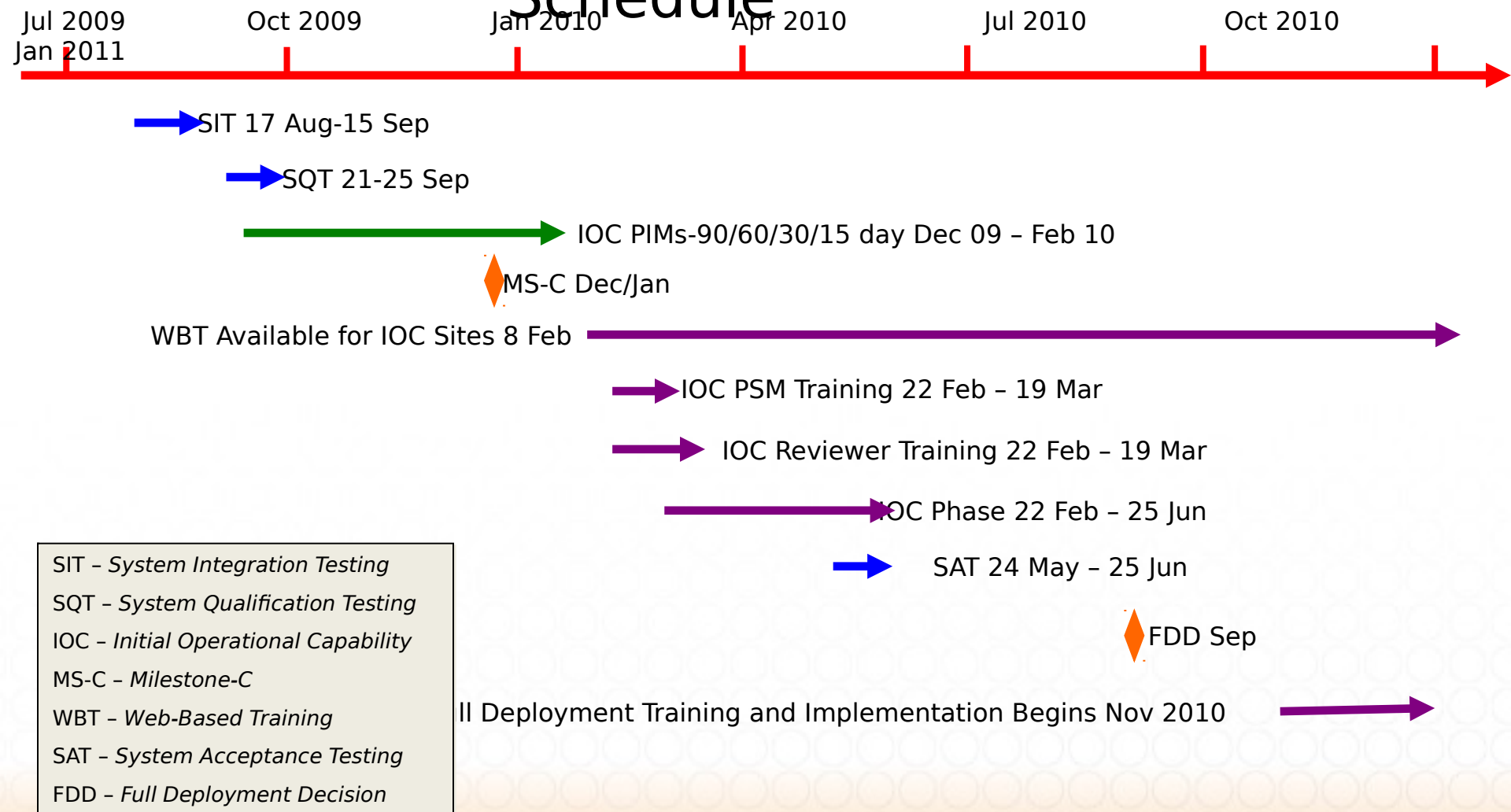
# PSR Acquisition Lifecycle

- ✓ Pre-Systems Acquisition Phase
  - ☒ Concept Decision and Refinement
- ✓ Systems Acquisition Phase
  - ☒ Milestone B – Approve Acquisition Strategy
    - Analysis of Alternatives – Commercial Off-the-Shelf (COTS)
    - Source Selection Board – Recommended Datix Incident Management software – *September 2008*
  - ☒ System Integration and Demonstration Phase
    - Integrator configured Datix to meet Functional, Information Assurance and System Security Requirements
    - Independent Test Team conducted System Integration Test
    - Functional community conducted System Qualification Test

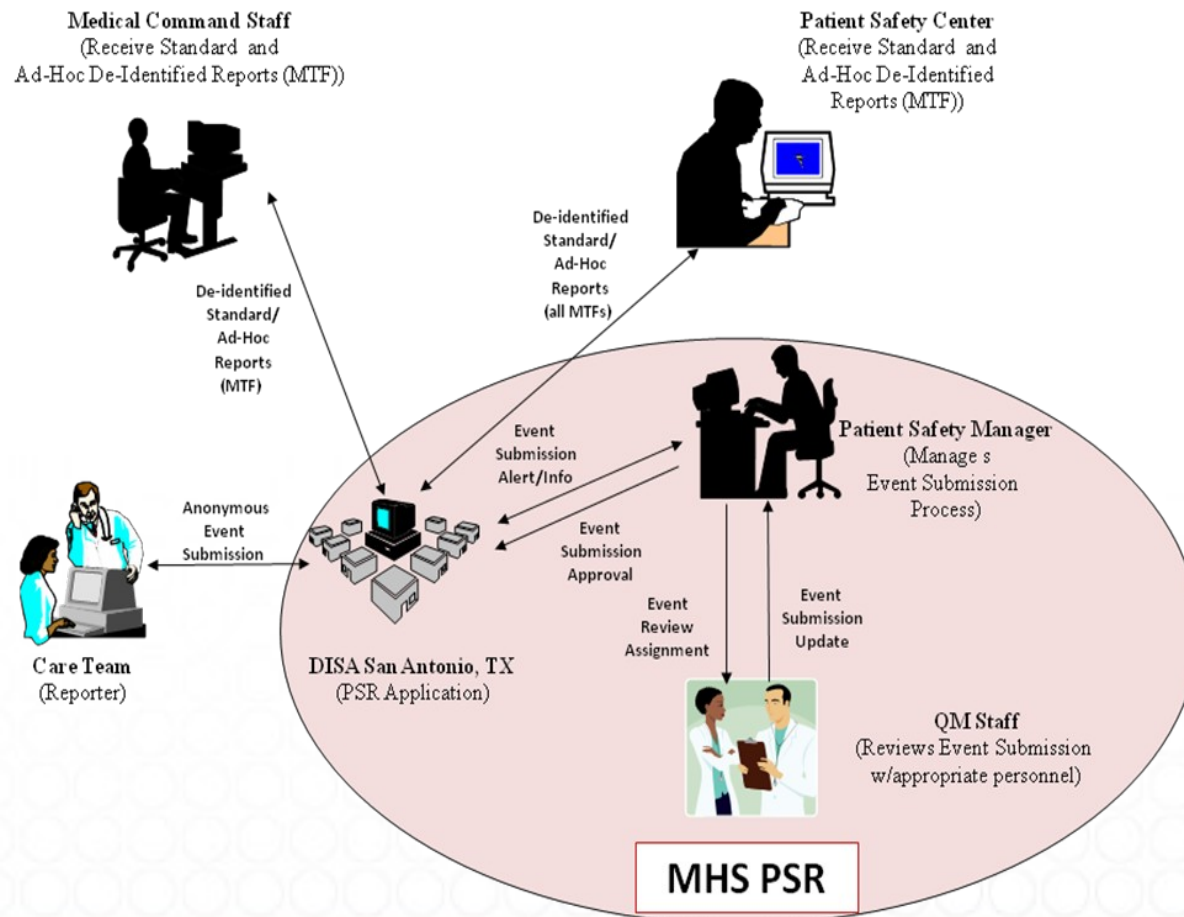
# PSR Acquisition Lifecycle (cont.)

- ✓ System Acquisition Phase – Initial Operational Capability
  - ☒ Milestone C – Limited Deployment – *April* - August 2010
    - 9 MTFs – 3 per Service (Army, Navy, Air Force)
    - Independent and Government Test teams completed Operational Test
  - ☒ Full Rate Deployment Decision – September 2010
    - Full deployment and training to all MTFs
    - Began in Nov 2010
- Sustainment Phase – Full Operational Capability – *Target completion June 2011*
  - Configuration changes – i.e. drop down list revisions; additional fields
  - Product upgrades
  - Security Patches

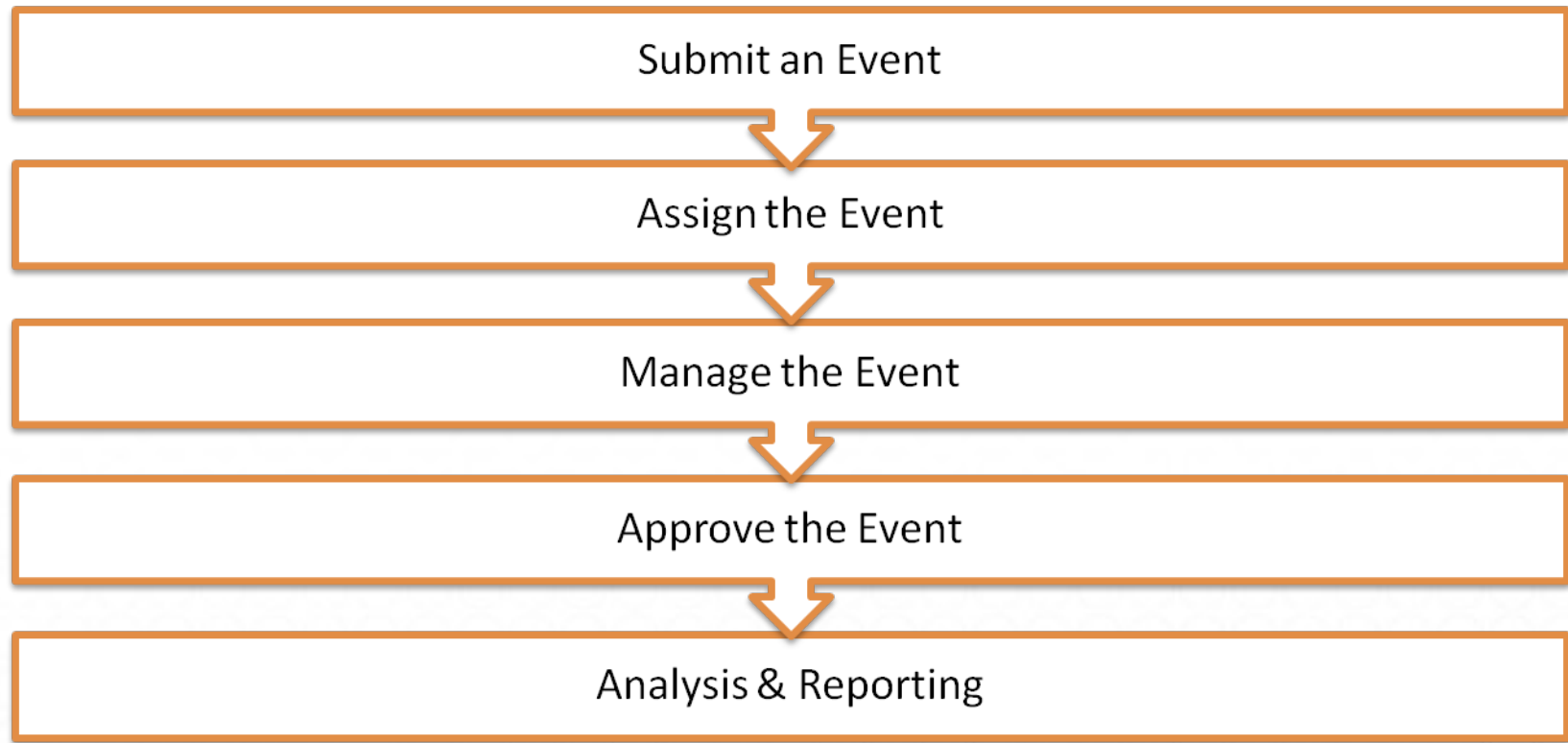
## PSR Implementation Schedule



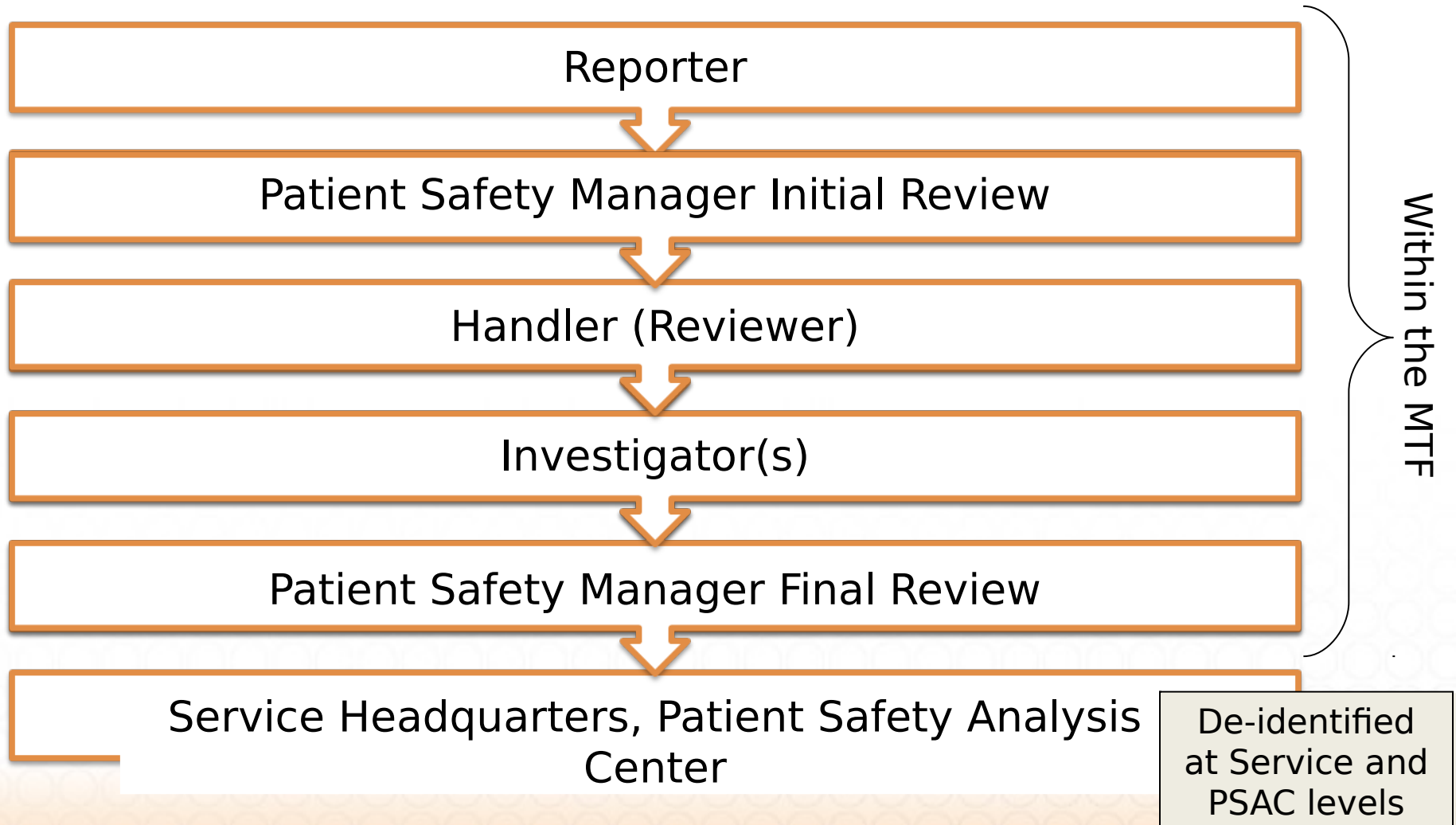
# Information Flow



# PSR Process



# Typical Event Flow





12 October 2010

Report Event : Login : Register

## Patient Safety Event Reporting Form

Reporting is anonymous unless reporter detail is completed

A ★ indicates a required field.

Click the ? icon for help with a particular field.

Click the ▾ button to view and select from the list of available options for that field.

Once submitted the event report is locked. User may not save draft report.

Issues with the PSR system should be reported to the MHS Help Desk:

Send email to mhssc@timpo.osd.mil or mhs\_remedy@timpo.osd.mil or call 1-800-600-9332.

### Event details

This section asks you to detail *When, Where and What* happened.

★ Event date (mm/dd/yyyy)

★ Event time (24 hour local time)

Discovery date (mm/dd/yyyy)

★ Service Affiliation  
Please select the Service where the event occurred

★ Service Region

★ Parent MTF

★ MTF

★ Department/Division/Directorate

★ Clinic/Service

★ Location Type

★ Event description  
Enter facts, not opinions. Do not enter names of people

★ Immediate action taken  
What actions were taken to prevent patient harm or lessen the impact?

What do you think caused the event?

When

Selecting Down Arrows Displays Pick lists

Where

What

# Sample PSR Report Form

Reporter's Recommendations  
What would prevent this type of event occurring in the future?

Patient Status

Was the provider notified?

Was the patient in transit?

Answering "Yes" opens Provider section

### Required Information

Answer Yes to all statements that apply - doing so will cause additional sections of the form to appear.

★ Was a patient involved?

★ Was this a medication event?

★ Was equipment/material involved?

Are there other people with information on this event?

Are there any documents to be attached to this record?

Answering "Yes" opens Patient section

Answering "Yes" to either the medication or Equipment material sections opens up the additional sections

### Details of person reporting the event.

Last Name

First Name

Status

Status detail

E-mail

If you wish to receive an e-mail confirmation please enter your work (.mil) e-mail address here

Telephone

Optional

Click "Submit" when finished

DO NOT PRINT! All information is subject to the Privacy Act of 1974, 5 USC 552 and 10 USC 1102. This is a protected quality assurance document.


Submit


Cancel

# Sample PSM Investigator Form

**△ Patient Safety Officer/Manager Event Investigation Form (DIF2)**

A \* indicates a required field.

Click the  icon for help with a particular field.


Click the  button to view and select from the list of available options for that field.

The system will time out after 10 minutes of inactivity and current information will be lost.

Issues with the PSR system should be reported to the MHS Help Desk:  
Send email to [mhsac@tmpo.osd.mil](mailto:mhsac@tmpo.osd.mil) or [mhs\\_remedy@tmpo.osd.mil](mailto:mhs_remedy@tmpo.osd.mil) or call 1-800-600-9332.

Current record	
Name and reference	
Location	
Details	
Medication	
Equipment/Material details	
Event Classification	
Notifications	
Investigation	
Feedback and general e-mail correspondence	
PSH Notepad	
Contacts for this event	
Print	
Printer Friendly	
Lists	
List all	
New search	
Saved queries	
Standard Report	
Design a report	
Modules	
Event Reporting	
Actions	
Contacts	
Admin	
Main Menu	

Name and reference	
The Name is used as a label for the Event record. It is derived from the name of the patient involved: LASTNAME FIRSTNAME.	
If there is no patient, then the PSM will enter a name for the event.	
* Name	<input type="text"/>
DATIX ID	No ID assigned yet - still in holding area
Approval status	In holding area - not yet reviewed
Form reference	PSR-1645
Reported date	03/08/2010
Opened date	02/04/2011
Handler	<input type="text"/>
Close Event	
Event Closed date	<input type="text"/>
Location	
* Service Affiliation	AIR FORCE
* Service Region	AIR COMBAT COMMAND
* Parent MTF	355TH MED GRP - DAVIS MONTHAN
* MTF	355TH MED GRP - DAVIS MONTHAN
* Department/ Division/ Directorate	FAMILY HEALTH


Was the provider notified?	<input type="text"/>
Root cause analysis?	<input type="text"/>
Sentinel Event?	<input type="text"/>
AAAIHC Adverse Incident	<input type="text"/>
Modification	
Stage of process	<input type="text"/>
Medication Event Type	<input type="text"/>
Drug Involved	<input type="text"/>
For a faster search enter the first few letter(s) of the drug involved.	
Then click the  button to select from a list of potential matches.	
- Form	<input type="text"/>
- Dose and Strength	<input type="text"/>
- Route	<input type="text"/>
Correct drug	<input type="text"/>
- Form	<input type="text"/>
- Dose and Strength	<input type="text"/>
- Route	<input type="text"/>
Number of times occurred	<input type="text"/>
This is a numeric field to record the frequency of this event - for most occurrences this will be 1	
Notes	
<input type="text"/>	
Equipment/Material details	
Product type	<input type="text"/>


* Clinic/Service	FHI TEAM DIAMONDBACK
* Location Type	Examination room
* Patient Status	<input type="text"/>
Was the patient in transit?	<input type="text"/>
Details	
* Event date	03/08/2010
* Event time	07:30
* Event time (24 hour local time)	
Discovery date	<input type="text"/>
* Event description	This is for training purposes only.
Enter facts, not opinions. Do not enter names of people	
* Immediate action taken	This is for training purposes only.
What actions were taken to prevent patient harm or lessen the impact?	
* Degree of harm	<input type="text"/>
What do you think caused the event?	<input type="text"/>
Reporter's Recommendations	What would prevent this type of event from occurring in the future?


Description of problem	<input type="text"/>
Brand name	<input type="text"/>
Current location	<input type="text"/>
Manufacturer	<input type="text"/>
Serial no.	<input type="text"/>
Description of device	<input type="text"/>
Supplier	<input type="text"/>
Service records held by	<input type="text"/>
Model/size	<input type="text"/>
Quantity defective	<input type="text"/>
Date of manufacture	<input type="text"/>
Last serviced	<input type="text"/>
Date put in service	<input type="text"/>
Batch/lot no.	<input type="text"/>
Outcome code	<input type="text"/>
Event Classification	
* Event type	<input type="text"/>
* Event sub-type	<input type="text"/>
* Event detail	<input type="text"/>
Result/Outcome	<input type="text"/>


# Sample PSM Investigator Form


**Investigation**


Investigator(s) 


Date Investigation started 


Action taken   
Please click on the question mark for examples of action taken.


Date Investigation completed 


























Outcome of investigation 

Further inquiry? 

Lessons learned   
Please click on the question mark for examples of lessons learned.

Cost 

Risk Assessment Matrix: 

	Severity on Patient and Facility (consequence)				
	Insignificant	Minor	Moderate	Major	Catastrophic
<b>Probability of recurrence (likelihood)</b>					
Almost Certain - Will undoubtedly recur, possibly frequently					
Likely - Will probably recur, but is not a persistent issue					
Possible - May recur occasionally					
Unlikely - Do not expect it to happen again but it is possible					
Rare - Do not believe that this will ever					

**Causal Factors**

The causal and/or contributing factors list includes expertise and information from Evidence Based Design (EBD) principles for the health care built environment, RCAs and FMEAs, human factors and ergonomics, and the National Patient Safety Goals, when applicable.


**Causal Factors**

**1. Communication (written and verbal)**

- ☐ 1.01 Care plan not followed (e.g. dropped consult)
- ☐ 1.02 Distractions-Auditory
- ☐ 1.03 Distractions-Visual
- ☐ 1.04 Distractions-Spatial (e.g., clutter)
- ☐ 1.05 Interruptions-By other staff
- ☐ 1.06 Interruptions-By patient
- ☐ 1.07 Interruptions-By patient family
- ☐ 1.08 Illegible handwriting, insufficient documentation
- ☐ 1.09 Product directions not clearly understood, confusing
- ☐ 1.10 Read back not performed/inadequate verbal order (NPSG 2.01.01)
- ☐ 1.11 Reporting and receipt of critical tests/results not timely (NPSG 02.03.01)
- ☐ 1.12 Unapproved abbreviations, acronyms, symbols, dose designations (NPSG 2.02.01)

**2. Communication: Team Performance**



- ☐ 2.01 No or inadequate communication before, during and/or after procedure
- ☐ 2.02 No or inadequate double-check
- ☐ 2.03 No or inadequate handoff (shift change) (NPSG 02.05.01)
- ☐ 2.04 Repeat back not used (NPSG 02.01.01)
- ☐ 2.05 Staff to family/other
- ☐ 2.06 Staff to patient
- ☐ 2.07 Staff to staff
- ☐ 2.08 Staff to supervisor
- ☐ 2.09 Supervisor to staff



**Risk Assessment Grade:** 

**Feedback and general e-mail correspondence**

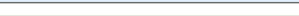
When sending a message, copy and paste the URL into the body of the message - this will provide the recipient with a direct link to this event.

**Recipients**  
Only linked contacts with e-mail addresses are shown.

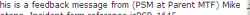
 


 


**Additional recipients**  
Enter e-mail addresses of other recipients not listed above. You can enter multiple addresses, separated by commas.



**Subject of message**  
Patient Safety Reporting feedback message (FOUO) (10 USC 1102)



**Body of message**  
This is a feedback message from (PSM at Parent MTP) Mike Datena. Incident form reference #PSR-1045.  
The feedback is:  




**Message history**

Date/Time	Sender	Recipient	Body of Message
No messages			

- ☐ 2.10 Pre-procedure verification process inadequate, not performed (NPSG 1.02.01, Universal Protocol)
- ☐ 2.11 Marking procedure site verification process inadequate, not performed (NPSG 1.02.01, Universal Protocol)
- ☐ 2.12 Timeout immediately before starting procedure verification process inadequate, not performed (NPSG 1.02.01, Universal Protocol)
- ☐ 2.13 Vendor to staff

**3. Built Environment/Facility Design**

- ☐ 3.01 Assistive devices not available (e.g., patient lift devices, IV poles)
- ☐ 3.02 Bathroom location (e.g., not on headwall)
- ☐ 3.03 Clutter, disorganization
- ☐ 3.04 Co-location of look-alike items (e.g., selected wrong item)
- ☐ 3.05 Distractions-Auditory
- ☐ 3.06 Distractions-Visual
- ☐ 3.07 Distractions-Spatial (e.g., clutter which limits detection, perception, visibility)
- ☐ 3.08 Disrupted, obstructed visual access to patient
- ☐ 3.09 Disrupted, obstructed visual access to equipment display
- ☐ 3.10 Emergency situation
- ☐ 3.11 Flooring as tripping/slipping hazard
- ☐ 3.12 Inadequate/cramped space to perform task, access patient, or use equipment
- ☐ 3.13 Inadequate/cramped space to perform task to perform team activities
- ☐ 3.14 Lack of suitable bed and/or facility
- ☐ 3.15 Location of medical supplies/equipment not standardized (e.g., inconsistent equipment/supply location)
- ☐ 3.16 Noise
- ☐ 3.17 Poor lighting (e.g., glare, insufficient lighting for task)
- ☐ 3.18 Railings, grab bars not present (e.g., bathroom, headwall, hallways)
- ☐ 3.19 Sink, rub dispenser accessibility/use in room
- ☐ 3.20 Wet and/or icy conditions

## Current Status

- 63 sites activated through 11 February
- 74 scheduled between now and 30 June 2011
- Patient Safety Managers have access to the Field Services Website
  - Schedules
  - Lessons Learned
  - FAQs
  - Training Materials

# Major Implementation Milestones

- Completing and submitting hierarchy
- Determining who will have PSM and Reviewers roles
  - Get them registered
  - Complete Application Authorization Request Form (AARF)
- 45, 30, 15 day Pre-implementation meetings
  - Provide information
  - Assess readiness for training and implementation
- Training
  - Typically 3 – 5 days depending on facility size
    - Instructor led
      - PSM (8 hrs)
      - Reviewer/Investigator (4 hrs)
    - Web-based training available for all roles including reporter
- Implementation
  - Immediately following training

# Planned Enhancements

- Version 10.2/11 Spring 2012
- Overall enhancements
  - Approval status fields
  - Type ahead
  - Enhanced e-mail notifications
  - User management
- Improvements to Searching and Reporting
  - Extra fields
  - Stacked bar, stoplight, gauges, change orientation etc
  - Define listing reports

# Implementation Challenges

- Transparency and Trust
- Three MHS services with very different cultures
- Overcoming change inertia
- Existing reporting culture
- Expectation management
  - Customization versus Standardization
- Transition to standardization
  - Agreement to a taxonomy
  - Appropriate use of that taxonomy
  - Efforts to ease the transition
- Increased workload on our patient safety managers (officers)
- Aggressive (8-month) full deployment schedule

# Reporting Culture Shift

Change is difficult:

- Shift from paper-based reporting, electronic reporting system (in pharmacy community)
- Information capture different from “tick mark reporting” or text-based reporting
- Altering individual facility reporting processes, standardizing reporting across the system
- Analyses capability on event level data

# Lessons Learned

- Leadership engagement
- User Buy-in
- Methods to accelerate process
  - Open Communication: “PSR Talk” (formatted after NPR’s “Car Talk”)
  - Other webinars
    - AHRQ-based Harm Scale
    - Causal Factors
    - Reporting
- Understanding implications of reporting culture shift from paper-based to web-based
- Importance of getting the site hierarchies correct

## PSR Success Story

- Service successes
  - 4-52% increase in reporting
  - Broadened number of reporters
  - New staff involvement – significant increase in reporting
  - Already using the data to make change
  - Leadership engagement
  - Service/site level ownership

## Conclusions

- Have a system that provides the data granularity necessary to implement change and make our facilities safer for our patients
- Have leadership engagement and user buy-in
- Aggressive implementation plan has remained on tight schedule
- Good functional/IT community partnership
- Good Government/Vendor partnerships

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<http://health.mil/dodpatientsafety>

